

FIGURE NSH-016:1. Ambient Temperature and Fluid Electrical Conductivity; Gunnison Hydrology Study; Excelsior Mining; Arizona; Borehole: NSH-016.

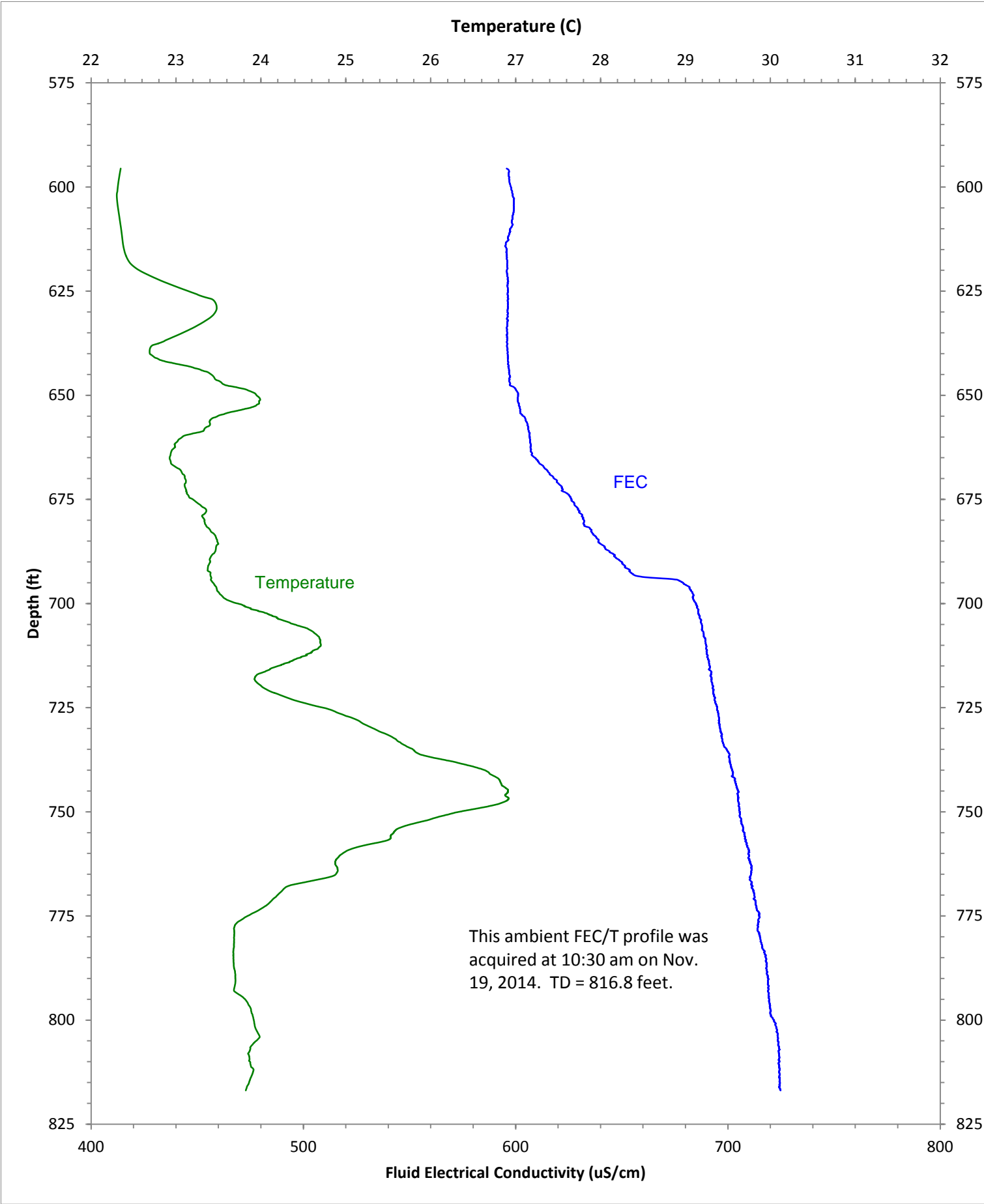


Table NSH-016:1. Summary of Corehole Dynamic Flowmeter Test-Station Results; Gunnison Hydrology Study; Excelsior Mining; Arizona; Borehole: NSH-016.

NSH-016: November 19, 2014					
Depth (feet)	Depth (meters)	Flow in Borehole During Ambient Testing (GPM)	Flow in Borehole During Injection Testing (GPM)	Percent Flow of Total Injection (%)	Comments
604.5	206.01	0.04	NA	NA	Averaged 604.5, 630.0 and 638.5 flow rates: 0.03 gpm
630.0	214.70	0.03	NA	NA	
638.5	217.60	0.03	NA	NA	
648.5	221.01	-0.06	NA	NA	Averaged 648.5, 671 and 683 flow rates: -0.05 gpm
671.0	228.68	-0.04	NA	NA	
683.5	232.94	-0.04	NA	NA	
701.5	239.07	-0.21	NA	NA	
718.0	244.69	-0.28	NA	NA	Averaged 718, 736 and 759 flow rates: -0.27 gpm
736.0	250.83	-0.27	NA	NA	
759.5	258.84	-0.26	NA	NA	
771.0	262.76	-0.15	NA	NA	Averaged 771, 783 and 789 flow rates: -0.14 gpm
783.5	267.02	-0.13	NA	NA	
789.0	268.89	-0.14	NA	NA	
802.0	273.32	0.01	NA	NA	

Note: Positive flow values represent upflow in the borehole, negative values represent downflow.

NA = Not Applicable. No test station was taken at that depth under the respective test condition.

Ambient water level (AWL) was recorded at 594.3 ft bgs on November 19, 2014 before Ambient Testing was initiated.

TD = 816.8 feet.

Table NSH-016:2. Summary of Corehole Dynamic Flow Meter Results; Gunnison Hydrology Study; Excelsior Mining; Arizona; Borehole: NSH-016.

Well Name	NSH-016
Ambient Depth to Water (ftbtoc)	595.18
Ambient Depth to Water (ftbgs)	594.30

Diameter of Borehole (ft)	0.656
Maximum Raised Head (ft)	NA
Effective Radius (ft)	NA

Interpretation of Corehole Dynamic Flowmeter Logging Results: NSH-016									
Interval No.	Top of Interval (ft)	Bottom of Interval (ft)	Length of Interval (ft)	Ambient Flow <sup>1</sup> (gpm)	Darcy Velocity in Aquifer <sup>2</sup> (ft/day)	Interval-Specific Flow Rate During Injection (gpm)	Interval-Specific Hydraulic Conductivity <sup>3</sup> (ft/day)	Transmissivity (ft <sup>2</sup> /day)	Interval-Specific Depth to Water - Vertical (ftbgs)
1*	594.3	603.5	9.2	-0.03	NA	NA	NA	NA	NA
2	642.5	644.5	2.0	0.08	NA	NA	NA	NA	NA
3	692.5	700.0	7.5	0.16	NA	NA	NA	NA	NA
4	709.4	717.0	7.6	0.06	NA	NA	NA	NA	NA
5	764.0	770.5	6.5	-0.13	NA	NA	NA	NA	NA
6	793.0	797.5	4.5	-0.15	NA	NA	NA	NA	NA
7	804.5	810.5	6.0	0.01	NA	NA	NA	NA	NA

Note: Negative flow, if any, is outflow from the borehole to the aquifer, positive flow is inflow to the borehole.

\* The top of this interval, Interval #1, is assumed to be Ambient Water-Level (AWL) of 594.30 ftbgs.

<sup>1</sup> Upward and downward ambient vertical flow are identified in this borehole under ambient conditions.

<sup>2</sup> Darcy Velocity, or Specific Discharge in aquifer, is calculated using the observed volumetric flow rate, the cross-sectional area of the flow interval in the wellbore and a wellbore convergence factor of 2.5 (Drost, 1968). The Darcy Velocity is only applicable to ambient horizontal flow.

<sup>3</sup> Hydraulic conductivity and transmissivity estimates are based on single well drawdown data, a porous-medium equivalent model and Hvorslev's 1951 porosity equation.

NA = Not Applicable